

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE¹

Agenda Item 1.3: to consider identification of globally/regionally harmonized bands, to the extent practicable, for the implementation of future advanced solutions to meet the needs of public protection agencies, including those dealing with emergency situations and disaster relief, and to make regulatory provisions, as necessary, taking into account Resolution **645 (WRC 2000)**;

Background Information: At WRC-2000, there were discussions of the radiocommunication needs of public agencies and organizations dealing with law and order, disaster relief and emergency response. Based on these discussions and a proposal that was submitted on this subject by one Administration, which was supported by several Administrations WRC-2000 recommended that this issue be on the Agenda for WRC-2003. WRC-2000 also adopted Resolution **645**, which invited the ITU-R to undertake appropriate studies and report the results of these studies to WRC-03. In addition to the invitation to study the identification of frequency bands that could be used on a global/regional basis by Administrations intending to implement future solutions for public protection and disaster relief, Resolution 645 also invites the ITU-R to conduct studies for the development of a resolution identifying the technical and operational basis for cross-border circulation of radiocommunication equipment in emergency and disaster relief situations.

Based on the studies conducted by the ITU-R, the United States believes that any spectrum recognized for future advanced solutions for public protection and disaster relief should be developed in an ITU-R Recommendation and linked to the Radio Regulations through a WRC Recommendation. The attached proposed WRC Recommendation recognizes the importance of spectrum used for public protection and disaster relief, acknowledges the need for national prerogatives, and allows flexible updates without maintaining a WRC agenda item specifically for this issue. The proposed WRC Recommendation provides uniform guidance to Administrations, users and manufacturers, without conveying any special status or priority to public protection and disaster relief in Article **5** of the Radio Regulations.

The proposed WRC Recommendation will help promote economies of scale in the production of radiocommunication equipment for public protection and disaster relief, the consolidation of duplicated infrastructure, spectrum efficiency, operational effectiveness, and interoperability nationally, regionally, and globally. It also will facilitate cross-border public protection operations and foster the ability of rescue teams from different Administrations and international relief organizations to communicate and interact more quickly and efficiently, thereby speeding disaster relief efforts. At the same time, such a Recommendation will not constrain the ability of any Administration or relief organization to continue to use spectrum it currently uses for public protection and disaster relief.

The United States believes that it is neither necessary nor advisable to identify frequency bands in Article **5** of the Radio Regulations for public protection and disaster relief. Band identification is not needed to achieve spectrum harmonization. Administrations have the flexibility to designate any band for public protection and disaster relief, and thus they already may use common frequency bands for public protection and disaster relief. Therefore, there is no need for Article **5** of the Radio Regulations to identify bands specifically for that purpose. Furthermore, if bands are identified in Article **5** of the Radio Regulations, there is a risk that Administrations may misinterpret the identification as a

¹ This is a revision to an earlier U.S. proposal for Agenda Item 1.3 (October 18, 2002)

constraint on their ability to use those bands for purposes other than public protection and disaster relief. Moreover, identifying frequency bands in Article 5 of the Radio Regulations for public protection and disaster relief applications, compared to other mobile systems or radio services that are not footnoted in the Radio Regulations, could be misinterpreted as giving a different regulatory status to public protection and disaster relief compared with other uses.

Proposal:

USA/ /1 ADD

RECOMMENDATION PUBLIC PROTECTION AND DISASTER RELIEF (WRC-03)

Public protection and disaster relief

The World Radiocommunication Conference (Geneva, 2003),

considering

- a) the growing and increasing telecommunication and radiocommunication needs of public protection agencies and organizations including those dealing with emergency situations and disaster relief that are vital to the maintenance of law and order, protection of life and property, disaster relief, and emergency response;
- b) that future advanced solutions used by such public protection and disaster relief agencies and organizations will require high data rates and possibly contiguous blocks of spectrum for some applications;
- c) that there is a need for interoperability and interworking between public protection and disaster relief networks, both nationally and for cross-border operations, in emergency situations and disaster relief
- d) that current public protection and disaster relief applications are mostly narrow-band, including voice and low data-rate applications, typically in channel bandwidths of 25 kHz or less;
- e) that although there will continue to be narrow-band requirements, many future applications will be wideband (indicative data rates in range of 384-500 kb/s) and broadband (indicative data rates in range of 1-100 Mbit/s) with channel bandwidths dependent on the use of spectrally efficient technologies;
- f) that commercial systems can serve as a complement to dedicated systems in support of public protection and disaster relief applications and that such complementary use would be in response to market demands;
- g) that there is potential for new technologies such as IMT-2000 and systems beyond and Intelligent Transportation Systems (ITS) that will support or supplement advanced public protection and disaster relief applications;
- h) that Resolution **36 (PP-98)** urges Member States to facilitate use of telecommunications for the safety and security of humanitarian personnel,
- i) that Draft New Recommendation ITU-R M.[DR.RCIRC] offers guidance to facilitate the global circulation of radiocommunication equipment in emergency and disaster relief situations

recognizing

- a) the benefits of different Administrations using common frequency bands for public protection and disaster relief, such as:
- b) increased potential for interoperability;
 - i) a broader manufacturing base and increased volume of equipment resulting in economies of scale and expanded availability of equipment;
 - ii) improved spectrum management and planning;
 - iii) enhanced cross-border and international coordination;
 - iv) improved cross-border circulation of equipment;
 - v) efficient use of radio frequency spectrum;
- c) that spectrum planning for public protection and disaster relief is done at the national level, taking into account the need for interoperability and the benefits of neighboring administrations using common frequency bands;
- d) the benefits of cooperation between countries for the provision of effective humanitarian assistance during disasters;
- e) the special needs of developing countries, taking into account the ITU-D Handbook Disaster Communications
- f) the needs of countries for cost-effective communications equipment for public protection and disaster relief agencies and organizations;
- g) that the trend is to increase the use of Internet Protocol (IP) based technologies;
- h) that currently administrations have designated some bands below 1 GHz allocated to the fixed and mobile services in all 3 Regions for their exclusive public protection and disaster relief use;
- i) that for solving future bandwidth requirements, there are several emerging technologies such as software defined radios, crossbanding, advanced compression waveforms and networking, that may be applied to increase the data throughput of systems supporting protection and disaster relief which may reduce the amount of spectrum required to support public protection and disaster relief applications;
- j) that technology exists today to enable dissimilar radios to be interoperable across different frequency bands with different waveforms
- k) that in times of disasters, when most terrestrial based networks are destroyed or impaired, amateurs, satellite and other non-ground based networks may be able to provide communications services to assist in public protection and disaster relief efforts;

noting

- a) that public protection radiocommunications refers to radiocommunications used by responsible agencies and organizations dealing with maintenance of law and order, protection of life and property, and emergency situations;
- b) that disaster relief radiocommunications refers to radiocommunications used by agencies and organizations dealing with a serious disruption of the functioning of society, posing a significant, widespread threat to human life, health, property or the environment, whether caused by accident, nature or human activity, and whether developing suddenly or as a result of complex, long-term process;
- c) that many administrations use frequency bands below 1 GHz for narrow-band public protection and disaster relief applications;
- d) that applications requiring large coverage areas and providing good signal availability would generally be accommodated in lower frequency bands;
- e) that applications requiring wider bandwidths would generally be accommodated in progressively higher bands;

- f) that in most administrations, public protection and disaster relief applications are provided at multiple administrative levels, starting with national down to local levels, and cooperation between the levels is a national matter to which common frequency bands and interoperable operations could assist;
- g) the existing investment in systems supporting public protection and disaster relief that many administrations have made;
- h) that flexibility must be afforded to disaster relief agencies and organizations to use current and future radiocommunication in an independent manner, so as to facilitate their humanitarian operations,

recommends

1. that, to the maximum extent possible, administrations encourage the use of common frequency bands for public protection and disaster relief applications;
2. that administrations are encouraged to satisfy temporary needs for frequencies in addition to what may be normally provided for in agreements with neighbouring administrations in emergency and disaster relief situations;
3. that by indicating the use of these bands for public protection and disaster relief applications, administrations are not precluded from using any other bands for public protection and disaster relief applications in accordance with the Radio Regulations;
4. that the use of these bands by public protection and disaster relief applications does not preclude or prevent the continued use of these bands by other services to which they are allocated and the use of these bands by public protection and disaster relief does not confer any priority to public protection and disaster relief over existing radio services.
5. that administrations encourage public protection and disaster relief agencies and organizations to utilize both existing and new technologies and solutions, to the extent practicable, to satisfy their public protection and disaster relief interoperability requirements and to further the goals of public protection and disaster relief agencies and organizations;
6. that administrations encourage agencies and organizations to use advanced wireless solutions, such as IMT-2000 and ITS, for providing complementary support for the communication needs of public protection and disaster relief agencies and organizations,

further recommends

1. that administrations currently utilizing bands below 1 GHz, allocated to the fixed and mobile services, for public protection and disaster relief narrowband radiocommunications are encouraged to continue using spectrum below 1 GHz for narrow-band PPDR applications;
2. that administrations encourage public protection and disaster relief agencies and organizations to utilize relevant ITU-R Recommendations in planning spectrum use and implementing technology and systems supporting public protection and disaster relief;
3. that recognition of spectrum for public protection and disaster relief should not preclude the use of any other spectrum to bring aid in times of disaster and humanitarian assistance.

invites ITU-R

to continue its technical studies and make recommendations concerning public protection and disaster relief's overall objectives, applications and technical and operational implementation, as necessary, for the future advanced solutions for meeting the future needs of public protection and disaster relief radiocommunications

Reasons: Creating a WRC Recommendation, without any specific identification in Article 5 of the Radio Regulations, avoids misinterpretation of the regulatory status of systems supporting public protection and disaster relief applications and disassociates any additional recognition of spectrum for public protection and disaster relief from the Table of Frequency Allocations. Furthermore, a WRC Recommendation will highlight and identify important points regarding public protection and disaster relief radiocommunications. Concerning this agenda item, every effort should be made to complete the work for WRC-03. To address any future developments after WRC-03, the Recommendation invites the ITU-R to continue its technical studies, as necessary.

USA/ /2 **NOC**

ARTICLE 5

Frequency Allocations

Reasons: At this point in time, there has been little support from internationally oriented public safety or disaster relief organizations for the identification of frequency bands in Article 5 of the Radio Regulations for public protection and disaster relief. Moreover, significant concerns have been raised regarding possible regulatory restrictions that may result from international identification of spectrum for public protection or disaster relief. Therefore, in order to avoid any perceived constraints on the ability of individual administrations to use spectrum in which they currently operate, it is appropriate not to make changes to Article 5 of the Radio Regulations.

USA/ /3 **SUP**

RESOLUTION 645 (WRC-2000)

Reasons: It is possible to conclude this agenda item at WRC-03 on the basis that the necessary regulatory requirements have been met. Resolution 645 (WRC-2000) should be suppressed.
